

PEAK TO AVERAGE POWER RATIO REDUCTION IN COMMUNICATION SYSTEMS

ABSTRACT OF THE DISCLOSURE

A system and method for reducing peak to average power ratio (PAR) in single and multi-carrier transmitters while accounting for the effect of the transmit filters without significantly affecting a requisite transmission Power Spectral Density (PSD) mask. To this end, in a multicarrier communication system, a DSL transmitter is provided that transmits a multicarrier symbol having a controlled peak-to-average power ratio (PAR) and which is a function of a plurality of information signals. The transmitter has a power reducer that reduces the PAR of the multicarrier symbol by modifying a selected information signal of a plurality of information signals, the modified signal including an information component, a peak reduction component, and a transmission channel response component.

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